

**ENGINEERING STANDARDS**

Rosedale Products, Inc.  
3730 West Liberty Road  
Ann Arbor, MI 48103

IOM  
7\_1\_1 Manual  
Backwash.wpd  
n:\iom\



Issue Date: 23Aug95  
Revision: A  
Revision Date:30May03

Specification No.  
**7.1.1**  
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**Installation, Operation, and Maintenance Manual for Manual Backwash Filter (MBW)**

**INSTALLATION, OPERATION, AND MAINTENANCE MANUAL**

ROSEDALE PRODUCTS, INC.



MODEL 8 MANUAL BACKWASH FILTER  
150 PSIG RATED FILTER UNIT

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### *Installation, Operation, and Maintenance Manual for Manual Backwash Filter (MBW)*

## **Installation, Operation, and Maintenance Manual for Manual Backwash Filter (MBW)**

### **I. General**

The MBW (Manual Backwash Filter) is available in a variety of configurations with several options. These instructions are written around the standard version which includes the air preparation system and valves. This can be identified by the presence of an air filter/regulator and whistle valve. There is an air line assembly leading from the whistle valve to the housing cover.

### **II. Installation**

- a. Plumbing the Rosedale "MBW" is different than conventional plumbing of similar Rosedale housings. The unfiltered liquid enters near the bottom of the housing and the filtered liquid exits on the side near the top of the housing. The lowermost port of the housing is where the backwashed liquid will exit.
- b. Filters are not normally installed in the backwash systems and must be ordered separately. When the unit arrives you will have to install the filter bags/media. The following steps should be followed:
  - 1) Loosen the three eye nuts on the cover of the housing and swing them free of the cover.
  - 2) Lift the cover and air pipe (24 inches long) out of the housing and set it aside.
  - 3) Reach inside the housing and remove the hold down spring assembly. Note that the springs are toward the top, which is the proper orientation of the assembly.
  - 4) Remove the Inner Basket from the housing and carefully set it aside. This is the support structure for the filter bag to keep it from collapsing. It is specially reinforced to withstand over 50 psi differential pressure (external pressure). Deformation may occur at

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higher pressures. Exercise care with handling this Inner Basket to avoid damaging the surface which the bag is pressed against. Dents or sharp protrusions will cause the bag to rip under pressure.

5. The Outer Basket need not be removed at this time; however, if removed, it too should be treated carefully to avoid damage which could rip the bag during installation or backwash.
- 6) With the Outer Basket in the housing, insert the filter bag in the Outer Basket. Make sure the top of the bag containing the ring is securely seated into the top of the Outer Basket.
- 7) Make sure there are no large wrinkles or folds in the filter bag, then carefully insert the Inner Basket into the filter bag until it seats on top of the filter bag ring.
- 8) Install the Hold down Spring Assemble, springs to the top, in the housing and seated on the Inner Basket.
- 9) Make sure the Cover O-Ring is properly seated in the groove in the top of the housing.
- 10) Place the Cover and Air Pipe Assembly on the housing and alternatively tighten the eyenuts.

### **III. Functional Description**

- a. The unfiltered liquid flows from the outside of the filter to the inside. The filtered effluent exits the housing near the top.
- b. As the filter collects dirt, the differential pressure will increase and the flow will normally decay, depending on the type pump used. Based on either pressure or flow, a decision must be made as to when to perform the backwash. Generally, you want to use as low a differential pressure as possible to avoid pushing dirt through the filter media, or losing too much flow. Seven (7) to fifteen (15) psid yields good results in most applications.
- c. The backwash is performed by closing the liquid inlet valve and the liquid

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outlet valve. Then open the liquid discharge valve and press the handle of the whistle valve to inject the backwash air into the housing. This allows the air to “chase” the clean liquid inside the filter backwards through the media and out of the housing. When using filter bags this also serves to shock the bag and expand the pores and further assist the release of all contaminants. Holding the handle down for about ten seconds should be sufficient to evacuate the housing. When you hear the air break through the liquid in the discharge, release the handle. This is a sign that effective backwashing has ceased. At this point, approximately eight gallons of liquid should have exited the discharge pipe.

It is important that proper air pressure be applied during the backwash and that the duration of the backwash be sufficient to drain the housing. Normally 40 psi is sufficient unless there is considerable head pressure to be overcome, in which case the backwash air pressure would have to be increased. Excessive air pressure will result in cleaning only the top portion of the filter bag. Too little air pressure will be evident by the cleaning of only the bottom portion.

#### **IV. Tips for Success**

- a. Do not let sufficient differential pressure build on the filter to extrude contaminant into/through the media.
- b. Excessive flow rates will reduce the efficiency of filter media. Slower flow rates allow thicker caking and facilitate finer filtration.
- c. Treat filter media with care. Avoid ripping the bags during installation by ensuring wrinkles/folds are out of the bag before carefully inserting the Inner Basket.

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#### **Important Notice**

**Warranty:** In the event any Rosedale Products, Inc. filtration product is found to be defective in material, workmanship, or not in conformance with any express warranty for a specific purpose, Rosedale's only obligation and your exclusive remedy, shall be to repair, replace or refund the purchase price of such parts or products upon timely notification thereof and substantiation that the product has been stored, maintained and used in accordance with Rosedale's written instructions.

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THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE.

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